Part 2: Conduct some sample analysis on the survey data - Trips by Mode and Purpose

Step 1. Please follow the instructions in the Homework document and populate table below

Step 2. Once you have populated Table 1, please look at Tables 2 and 3 below. They should be updated automatically

Table 1. Cross-Tabulation of Trips by Mode and Purpose

Sum of WEIGHT	Purpose									
Mode	1	2	3	4	5	6	7	8	9	Grand Total
1	9,326	63,341	387	8,168	4,960	13,573	16,063	7,475	7,060	130,354
2	1,369	3,695				920	593	107	629	7,313
3	387	89,336	320		1,041		6,038		14,082	111,204
4	17,097	4,557	3,288	1,973		1,493	4,638	369	2,659	36,075
5	60,215	153,205	3,905	40,944	33,543	54,478	202,929	11,774	123,086	684,079
6	529,850	13,303	37,631	107,528	164,785	84,475	234,042	79,108	204,648	1,455,371
7	728		75	226			419	97	75	1,621
97	160		320		215	515	1,859		235	3,305
98	304						304			608
Grand Total	619,436	327,437	45,927	158,839	204,544	155,455	466,885	98,930	352,476	2,429,929

Table 2. Percentage of Trips by Purpose

Purpose	Percent Trips
Journey-to-Work C	25.5%
HB School	13.5%
HB Univ	1.9%
HB Shop	6.5%
HB Pickup and Dr	8.4%
HB Social Recreati	6.4%
HB Other	19.2%
Non Home-Based	4.1%
Non Home-Based	14.5%
All Purposes	**100.0%**

Table 3. Percentage of Trips by Mode and Purpose

Mode	Journey-to-Work Chain	HB School	HB Univ	HB Shop	HB Pickup and Drop-Off	HB Social Recreational	HB Other	Non Home-Based Work	Non Home-Based Non-Work	All Purposes
Walk/Wheelchair	1.5%	19.3%	0.8%	5.1%	2.4%	8.7%	3.4%	7.6%	2.0%	5.4%
Bicycle	0.2%	1.1%	0.0%	0.0%	0.0%	0.6%	0.1%	0.1%	0.2%	0.3%
School Bus	0.1%	27.3%	0.7%	0.0%	0.5%	0.0%	1.3%	0.0%	4.0%	4.6%
Public Bus	2.8%	1.4%	7.2%	1.2%	0.0%	1.0%	1.0%	0.4%	0.8%	1.5%
Passenger	9.7%	46.8%	8.5%	25.8%	16.4%	35.0%	43.5%	11.9%	34.9%	28.2%
Driver	85.5%	4.1%	81.9%	67.7%	80.6%	54.3%	50.1%	80.0%	58.1%	59.9%
Taxi/Limousine	0.1%	0.0%	0.2%	0.1%	0.0%	0.0%	0.1%	0.1%	0.0%	0.1%
Other	0.0%	0.0%	0.7%	0.0%	0.1%	0.3%	0.4%	0.0%	0.1%	0.1%
Refused	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Part 3: Estimate a Simple Regression Model for JTW Trips

Attraction District	Total JTW Attractions	Total Employment
Airport	62,753	48,839
CBD	80,800	58,085
Tonyville	10,929	15,290
Christown	19,041	20,728
Samville	56,748	40,464
Thomas County	626	1,966
Lorraine Heights	-	1,316
Boalweyville	8,786	5,343
Yash Hill	82,654	70,753
Cutler County	630	1,583
Snoafe Lake	6,185	4,102
Midtown	58,933	37,036
East Reetband	11,619	8,627
Teamippe	-	1,104
Den City	11,436	9,297
East Sun County	4,297	6,763
Bock Springs	615	1,027
Wright Fields	43,309	32,491
McDonald Farms	82,551	84,414
Ayer Plains	4,421	4,614
Chekinga County	626	1,526
Noah Vale	44,895	26,379
University	18,722	11,541
Cortin Junction	8,859	9,293
Kuptaville	-	2,625

JTW Attractions = 560.01 + 1.2 * Total Employment

SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.972439736
R Square	0.945639041
Adjusted R Square	0.943275521
Standard Error	6991.483235
Observations	25

ANOVA

	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	19557113648	19557113648	400.0977585	4.82284E-16
Residual	23	1124259270	48880837.83		
Total	24	20681372918			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*	*ower 95.0%*	*pper 95.0%*
Intercept	560.0102134	1849.617367	0.302770845	0.764785908	-3266.209621	4386.23	-3266.21	4386.23
X Variable 1	1.198391942	0.059912276	20.00244381	4.82284E-16	1.074454124	1.32233	1.074454	1.32233

RESIDUAL OUTPUT

Observation	*Predicted Y*	*Residuals*
1	59087.87662	3664.717264
2	70169.18608	10630.81844
3	18883.3725	-7954.525364
4	25400.65025	-6359.960894
5	49051.56517	7696.773077
6	2915.529204	-2289.079004
7	2137.193708	-2137.193708
8	6963.329618	1822.900942
9	85349.57722	-2695.805998
10	2457.416657	-1827.175377
11	5476.173216	708.9713038
12	44943.36684	13989.67707
13	10898.31127	720.3171293
14	1883.066599	-1883.066599
15	11701.7176	-265.4855729
16	8664.727709	-4368.117279
17	1790.760339	-1175.623079
18	39497.29753	3812.167691
19	101720.8331	-19169.52801
20	6089.269112	-1668.324112
21	2389.04165	-1762.59145
22	32172.05511	12722.73009
23	14391.13454	4330.932045
24	11697.15927	-2838.268069
25	3705.260535	-3705.260535